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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/016,840 | 12/13/2001 | Ronald L. Stewart | SP00-361 | 7492 |

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CORNING INCORPORATED
SP-TI-3-1
CORNING, NY 14831

[REDACTED] EXAMINER

BLACKWELL RUDASIL, GWENDOLYN A

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 1775 | 4 |

DATE MAILED: 11/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|---------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/016,840 | STEWART, RONALD L. |
| Examiner | Art Unit | |
| Gwendolyn A. Blackwell-Rudasill | 1775 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on ____.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-11 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
 5) Claim(s) ____ is/are allowed.
 6) Claim(s) 1-11 is/are rejected.
 7) Claim(s) 2 is/are objected to.
 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 13 December 2001 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 11) The proposed drawing correction filed on ____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) The translation of the foreign language provisional application has been received.
 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) Z, 3.
 4) Interview Summary (PTO-413) Paper No(s). ____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other:

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show in Figure 1, elements 12, 14 and 16 as described in the specification on page 3, section [0016]. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The specification has the following informality:

On page 3, section [0016], at line 6, should “()” be present at the end of the sentence?

Correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "sufficient" in claim 7 is a relative term, which renders the claim indefinite.

The term "sufficient" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably

appraised of the scope of the invention. In light of applicant's disclosure, the term "sufficient" would cause even one of skill in the art to endure undue experimentation in order to find the end points of the proper range of Nd₂O₃ to incorporate in the glass composition to obtain the limitations of claim 7.

Claim Objections

4. Claim 2 is objected to because of the following informalities:

Claim 2, line 2 has the wavelength measurement as "nm" while all other thickness measurements in regards to the glass thickness is in "mm." Should "nm" be "mm"? Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent no. 5,844,721, Karpen, in view of United Kingdom Published Patent Application no. 0441128, GB '128, further in view of Applicant's disclosure.

Karpen discloses a rearview window with a glass mirror that is doped with Nd₂O₃, which acts as a filter for yellow light. The glass mirror has a silver backing with a transparent glass pane in front of the silvered reflective surface. The Nd₂O₃ is contained in the glass in a sufficient

Art Unit: 1775

amount to reduce the amount of vision discomfort from yellow light with the concentration of Nd₂O₃ ranging from 5-30%. The glass absorbs 95-98% of the light in the wavelength ranging from 565-595 nm, (columns 10-11, lines 52-6). Karpen also discloses that the transmittance of light through the glass is related to the thickness of the glass by an absorption coefficient:

$$\ln(T) = -AL$$

wherein L is the thickness of the glass, A is the absorption coefficient, T is the percentage of light transmitted, and ln is the natural logarithm. Furthermore, the glass used as the glass pane can be made of a soda lime glass, (column 9, lines 11-23). An example of a glass used as a rearview mirror glass pane is glass made of a mixed alkali zinc silicate glass. Karpen does not specifically disclose the composition of the glass.

GB '128 disclose a glass with Nd₂O₃ present in an amount greater than 5%. The glass can have the following components in wt%, (page 2):

| | |
|--------------------------------|--------|
| SiO ₂ | 40-60 |
| Nd ₂ O ₃ | 10-30 |
| B ₂ O ₃ | 5-15 |
| Na ₂ O | 3-18 |
| ZnO | 0.1-10 |
| K ₂ O | 0-3 |
| Al ₂ O ₃ | 0-7 |

The glass of GB '128 can be used for filters, (page 5, lines 33-37). The softening point temperature as claimed by applicant for the Nd₂O₃ containing glass is present in the GB '128 glass as the glass composition of GB '128 substantially overlaps that as claimed by applicant, (page 9, line 50).

According to applicant's disclosure, it is known in the art that a thin sheet of glass, called a microsheet, can have a thickness of less than 0.5 mm. In addition, the microsheet can be used

for different purposes, such as a laptop LCD. It is also known that mirrors are commonly made by placing a reflective film or coating over the surface of a glass sheet, (page 1, sections [0003-0004]).

Karpen discloses a rearview mirror with a specific example that utilizes an alkali zinc silicate glass however a specific glass composition is not mentioned. The glass disclosed by GB '128, has the composition of an alkali zinc silicate glass that can be used as a filter. As such, it is within the skill of one in the art to modify the rearview mirror of Karpen with the glass made from the composition of GB '128 to obtain rearview mirror having a Nd₂O₃ containing glass with more than 5 wt% of Nd₂O₃ present in the glass to obtain a rearview mirror that blocks more yellow light making for a better night vision for the driver.

While Karpen discloses that the glass is 0.5 mm thick or more, (claim 1), it is known in the art that glass sheets can have a thickness less than 0.5mm used in diverse applications, such as a laptop LCD. It is within the skill of one in the art to modify the thickness of the glass through routine experimentation to obtain a thickness that provides the optimum amount of light transmittance at the desired wavelength. Especially in view of the fact that the Lambert-Beers Law provides for a correlation between the thickness of the glass and the percentage of light transmitted, (Karpen, column 9, lines 15-23).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gwendolyn A. Blackwell-Rudasill whose telephone number is

(703) 305-9741. The examiner can normally be reached on Monday - Thursday; 6:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (703) 308-3822. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Gwendolyn A. Blackwell-Rudasill
Examiner
Art Unit 1775

gbr
November 4, 2002


CATHY LAM
PRIMARY EXAMINER